

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: HARRISVILLE POND	Lake Area (ha):	48.28
Town: HARRISVILLE	Maximum depth (m):	12.5
County: Cheshire	Mean depth (m):	4.7
River Basin: Merrimack	Volume (m ³):	2264500
Latitude: 42°57' N	Relative depth:	1.6
Longitude: 72°06' W	Shore configuration:	2.15
Elevation (ft): 1318	Areal water load (m/yr):	39.39
Shore length (m): 5300	Flushing rate (yr ⁻¹):	8.40
Watershed area (ha): 3263.4	P retention coeff.:	0.39
% watershed ponded: 1.1	Lake type:	natural w/dam

BIOLOGICAL:

	26 January 1988	24 July 1987
DOM. PHYTOPLANKTON (% TOTAL) #1	TABELLARIA 60%	CHRYOSOPHAERELLA 80%
#2	ASTERIONELLA 35%	DINOBRYON 15%
#3		
PHYTOPLANKTON ABUNDANCE (cells/mL)		565.0
CHLOROPHYLL-A (µg/L)		9.90
DOM. ZOOPLANKTON (% TOTAL) #1	PERITRICH CILIATE 34%	NAUPLII LARVAE 56%
#2	KELICOTTIA 25%	KERATELLA 30%
#3	KERATELLA 20%	
ROTIFERS/LITER	44	22
MICROCRUSTACEA/LITER	13	28
ZOOPLANKTON ABUNDANCE (#/L)	87	50
VASCULAR PLANT ABUNDANCE		Common
SECCHI DISK TRANSPARENCY (m)		3.0
BOTTOM DISSOLVED OXYGEN (mg/L)	3.8	0.0
BACTERIA (fecal col., #/100 ml) #1		< 10
#2		< 10
#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m): 4.0
Hypolimnion volume (m³): 354000

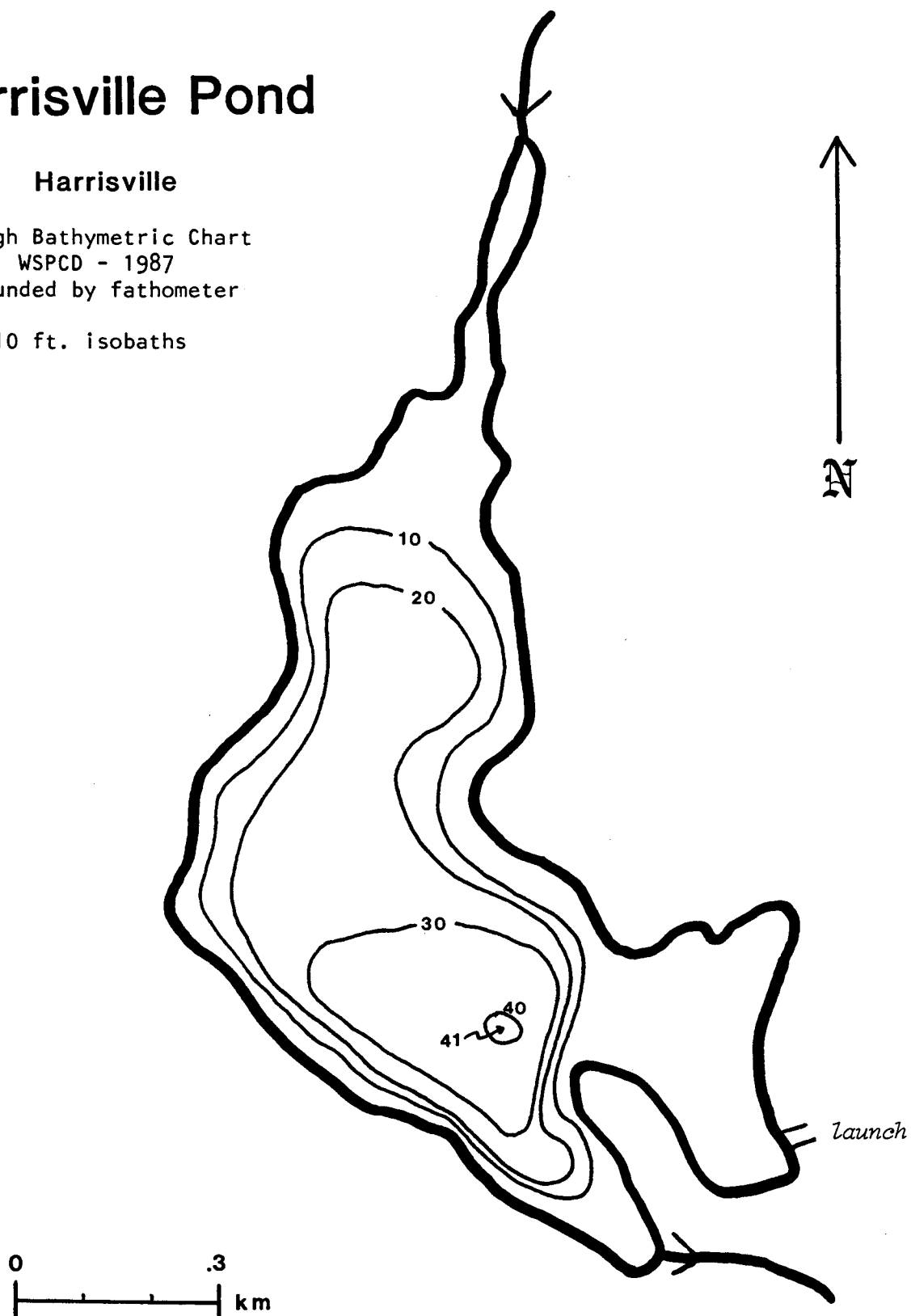
<u>CHEMICAL:</u>		Lake: HARRISVILLE POND Town: HARRISVILLE				
	26 January 1988		24 July 1987			
DEPTH (m)	4.0	8.0	2.0	5.5	10.0	
pH (units)	5.6	5.5	6.3	5.4	5.6	
A.N.C. (Alkalinity)	1.0	1.1	1.7	1.0	1.9	
NITRATE NITROGEN	< 0.05	0.05	< 0.05	< 0.05	< 0.05	
TOTAL KJELDAHL NITROGEN	0.25	0.62	1.54	0.23	0.36	
TOTAL PHOSPHORUS	0.004	0.003	0.010	0.025	0.021	
CONDUCTIVITY (μ mhos/cm)	25.2	26.8	23.2	25.6	26.9	
APPARENT COLOR (cpu)	16	17	24	24	50	
MAGNESIUM			0.44			
CALCIUM			1.4			
SODIUM			1.6			
POTASSIUM			0.40			
CHLORIDE	< 2	< 2	< 2	2	2	
SULFATE	6	6	5	5	5	
TN : TP	62	223	154	9	17	
CALCITE SATURATION INDEX			4.6			
All results in mg/L unless indicated otherwise						
<u>TROPHIC CLASSIFICATION: 1987</u>						
	D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
	6	2	2	1	11	Eutro.
<u>COMMENTS:</u>						
1. Formerly called Upper Pond; also called Nubaunsit Pond.						
2. This pond was previously surveyed and classified in 1977. The pond received only one additional point in 1987, due to a greater dissolved oxygen depletion in the bottom waters, but this was enough to move it from a mesotrophic to a eutrophic classification.						
3. Launch site was a moderately steep gravel ramp into shallow water; it was adequate. Parking available for 4 vehicles.						
4. The whole-water phytoplankton was 35% greens, 30% golden algae, and 25% blue-greens. Dominant genera were tiny green flagellates (35%), <u>Merismopedia</u> (25%), and <u>Chrysosphaerella</u> (20%).						

Harrisville Pond

Harrisville

Rough Bathymetric Chart
WSPCD - 1987
sounded by fathometer

10 ft. isobaths



FIELD DATA SHEET

LAKE: HARRISVILLE POND
DATE: 07/24/87

TOWN: HARRISVILLE
WEATHER: HAZY, HOT & BREEZY

	DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
	0.1	26.5	8.2	100 %
	1.0	26.0	8.2	100 %
	2.0	25.0	8.2	99 %
	3.0	22.2	9.7	109 %
	4.0	18.5	7.1	75 %
	5.0	15.0	4.0	39 %
	6.0	12.1	5.3	49 %
	7.0	9.9	3.0	26 %
	8.0	9.0	2.2	19 %
	9.0	8.2	1.7	14 %
	10.0	8.1	1.2	10 %
	11.0	8.0	0.0	0 %
	12.0	8.0	0.0	0 %

SECCHI DISK (m): 3.0

COMMENTS:

BOTTOM DEPTH (m): 12.2

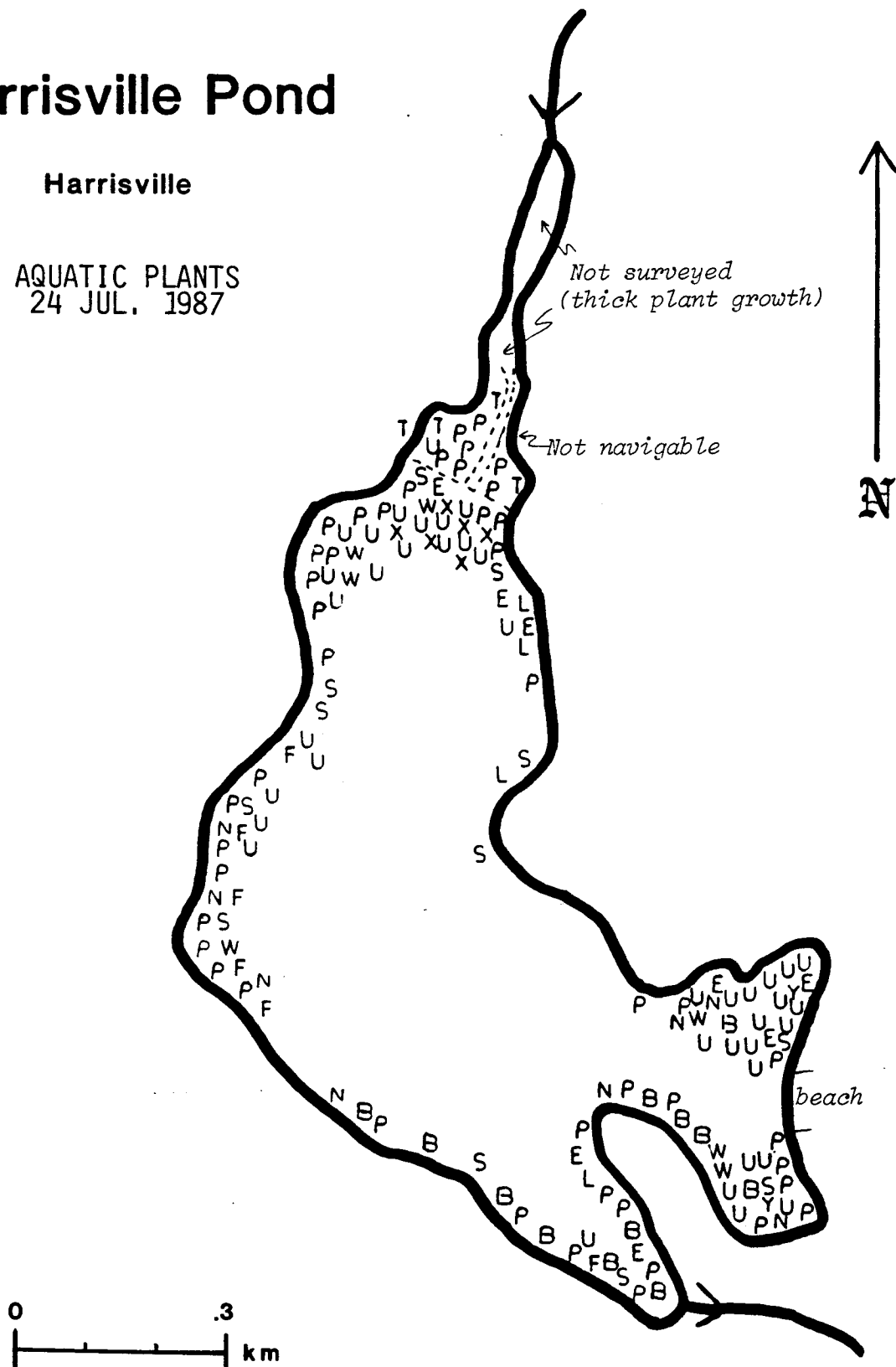
TIME: 1300

*Dissolved oxygen values are in mg/L

Harrisville Pond

Harrisville

AQUATIC PLANTS
24 JUL. 1987



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